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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/736,807	12/14/2000	Gregory Donald Troxel	BBNT-P01-107	6622
28120	7590	07/06/2005	EXAMINER	
FISH & NEAVE IP GROUP ROPES & GRAY LLP ONE INTERNATIONAL PLACE BOSTON, MA 02110-2624			DUONG, FRANK	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/736,807

Applicant(s)

TROXEL ET AL.

Examiner

Frank Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-15 is/are rejected.
- 7) ☒ Claim(s) 8 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/24, 7/12 & 10/05/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is a response to communications dated 05/23/05. Claims 1-16 are pending in the application.

Information Disclosure Statement

2. The information disclosure statements filed 6/24/04, 7/12/04 and 10/05/04 comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. They have been considered and placed in the application file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 1-7, 9-12 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Zhou et al, Reverse Routing: An Alternative to MIP and ROMIP Protocols, IEEE, pages 150-155, May 9-12, 1999 (hereinafter "Zhou").

Regarding **claim 1**, in accordance with Zhou reference entirety, Zhou discloses a method (*page 152, Fig. 3 and the description starting in section 4 and thereafter; Reverse Routing*) for use in delivering messages over a network, the method comprising:

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(a) receiving a network layer address (care-of address) of a first node (mobile host) at a first router (Foreign Agent) on a first sub-network (Foreign Network), the first sub-network being topologically foreign with respect to the network layer address of the first node (*see Fig. 3 and page 152, section 4, last paragraph; mobile host obtains a care-of address*);

(b) sending the network layer address (mobile host address) of the first node (mobile host) and the network layer address (care-of address) of the first router (Foreign Agent) toward a first remote node (Sender) at a second sub-network (*Fig. 3; Router and Sender network*), the second sub-network being topologically foreign with respect to the network layer address of the first node (*see Fig. 3 and page 152, section 4, last paragraph; mobile host sends a registration message to the sender*);

(c) receiving at the first router a message tunneled by the first remote node using the sent network layer address of the first router, the message tunneled by the first remote node in response to a message at the first remote node addressed to the first node (*Fig. 4, pages 153-154 and description pertaining Fig. 4; showing encapsulated IP message being sent from Router to Foreign Agent*);

(d) de-tunneling the message tunneled toward the first router by the first remote node (*Fig. 4 and page 154, left column, first paragraph, it is disclosed "when the encapsulated packet reaches the foreign network where the mobile receiver is hosted, a knowledgeable encapsulating agent decapsulates the IP packet*); and

(e) sending the de-tunneled message toward the first node (page 154, left column, first paragraph, it is disclosed (*Fig. 4 and page 154, left column, it is disclosed the decapsulated packet is delivered to its ultimate destination*);

whereby (a)-(e) proceed without requiring communication with any node on a sub-network that is a topologically home sub-network with respect to the network layer address of the first node (*note: The above steps are performed without the home agent being involved*).

Regarding **claim 2**, in addition to features recited in base claim 1 (see rationales discussed above), Zhou further discloses wherein an initial message sent from the first remote node toward the first node after the first node establishes communication with the first sub-network is not received by any node on a sub-network that is a topologically home sub-network with respect to the network layer address of the first node (*see Fig. 4 on page 154 depicted message from Sender to Mobile Receiver not receiving by home agent*).

Regarding **claim 3**, in addition to features recited in base claim 1 (see rationales discussed above), Zhou further discloses wherein (a)-(e) proceed without communication with any node on the sub-network that is a topologically home sub-network with respect to the network layer address of the first node (*see Fig. 4 on page 154 depicted message from Sender to Mobile Receiver not receiving by home agent*).

Regarding **claim 4**, in addition to features recited in base claim 1 (see rationales discussed above), Zhou further discloses wherein the network layer address of the first

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node comprises an Internet Protocol (IP) address (*IP address of mobile host is discussed on page 15, right column and thereafter*).

Regarding **claim 6**, in addition to features recited in base claim 1 (see rationales discussed above), Zhou further discloses wherein the first node comprises a wireless node (Fig. 4; Mobile Host).

Regarding **claim 7**, in addition to features recited in base claim 1 (see rationales discussed above), Zhou further discloses wherein the first router comprises a foreign agent (Foreign Agent) configured to communicate with a home agent (Home Agent) on the first node's topologically home sub-network (Home Network) (*Fig. 3 shows environment of Mobile IP implementing Reverse Routing*).

Claims 9-12 and 14-15 call for a computer program mirrored the method claims 1-4 and 6-7. Thus, they are rejected by the same rationales applied to claims 1-4 and 6-7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou.

Regarding **claims 5 and 13**, Zhou discloses the claimed invention of base claims 1 and 9, but fails to further disclose the foreign agent sending the de-tunneled message to the mobile host using mobile host's MAC address instead of mobile node's IP address. Examiner is taking an Office Notice that it is common or well known to use either IP address or MAC address to send message to an entity in an IP network to utilize the uniqueness of the MAC address associated with each entity. Thus, it would have been obvious to those skilled in the art having Zhou reference readily available to contemplate the implementation or modification to send message from foreign agent to mobile host using mobile host's MAC address to utilize the uniqueness of the MAC address associated with each entity. Moreover, in a difference rationales, a skilled artisan would have contemplate of placing an address resolution protocol (ARP) server to resolve MAC address from IP address to arrive the claimed invention with a motivation to utilize the uniqueness of the MAC address associated with each entity.

Allowable Subject Matter

5. Claims 8 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 1-7 and 9-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

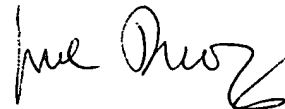
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is 571-272-3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

July 1, 2005



FRANK DUONG
PRIMARY EXAMINER